REMARKS/ARGUMENTS

Applicant has received the Office Action dated January 24, 2008, in which the Examiner: 1) rejected claims 1-5, 7 and 12-17 under 35 U.S.C. §102(b) as being unpatentable over Fleek et al (U.S. Pat. No., 5,533,025) (hereinafter *Fleek*).

Applicant thanks the Examiner for indicating that Claims 8-11 and 18-21 are allowed, and that Claim 6 would be allowed if rewritten to incorporate all of the limitations of the independent claim from which it depends.

Applicant has amended two unintentional typographical errors in the specification, without adding new matter.

Claims 1-21 as originally filed remain pending in this application. Based upon the arguments presented below, Applicant believes all claims to be in condition for allowance.

Claim Rejections Under 35 U.S.C. §102(b)

In the Office Action, the Examiner rejected claims 1-5, 7 and 12-17 under 35 U.S.C. §102(b) as allegedly obvious over *Fleek*. Applicant respectfully traverses these rejections.

Anticipation under Section 102 can be found only if a single reference shows exactly what is claimed. See *Titanium Metals Corp. v. Banner*, 227 U.S.P.Q. 773 (Fed. Cir. 1985). For a reference to anticipate under Section 102, every element of the claimed invention must be identically shown in a single reference. See *In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). That is, the prior art reference must show the *identical invention "in as complete detail as contained in the…claim*" to support a *prima facie* case of anticipation. *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989)(emphasis added). Thus, for anticipation, the cited reference must not only disclose all of the recited features but must also disclose the *part-to-part relationships* between these features. See *Lindermann Maschienfabrik GMBH v. American Hoist & Derrick*, 221 U.S.P.Q. 481, 486 (Fed. Cir. 1984). Accordingly, the Applicants need only point to a single element or claimed relationship not found in the cited reference to demonstrated that the cited reference fails to anticipate the claimed subject

matter. A strict correspondence between the claimed language and the cited reference must be established for a valid anticipation rejection.

Moreover, the Applicants submit that, during the patent examination, the pending claims must be given an interpretation that is reasonable and consistent with the specification. See *In re Prat*e, 162 U.S.P.Q. 541, 550-51 (C.C.P.A. 1969); *In re Morris*, 44 U.S.P.Q.2d 1023, 1027-28 (Fed. Cir. 1997); see also M.P.E.P. §2111 (describing the standards for claim interpretation during prosecution). Indeed, the *specification* is "the primary basis for construing the claims." *Philips v AWH Corp.*, 415 F.3d 1303, 1315 (Fed.Cir. 2005). It is usually dispositive. *See id*. Interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. See *In re Cortright*, 49 U.S.P.Q.2d 1464, 1468 (Fed. Cir. 1999); see also M.P.E.P. §2111. That is, recitations of a claim must be read as they would be interpreted by those of ordinary skill in the art. See *Rexnord Corp. v. Laliram Corp.*, 60 U.S.P.Q.2d 1851, 1854 (Fed. Cir. 2001); see also M.P.E.P. §2111.01. In summary, an Examiner, during prosecution, must interpret a claim recitation as one of ordinary skill in the art would reasonably interpret the claim in view of the specification. See *In re American Academy of Science Tech Center*, 70 U.S.P.Q.2d 1827 (Fed. Cir. 2004).

Independent Claim 1 recites, "[a] method of wireless communication that comprises:

receiving a beacon frame that specifies a rotation sequence and a hopping sequence;

missing a subsequent beacon frame; and

using the rotation sequence and hopping sequence received previously to determine a current frequency hopping sequence for a current superframe following the missed beacon frame."

Independent Claim 12 recites, "[a] piconet member device that comprises:

an antenna;

a processor coupled to the antenna to receive and transmit piconet communications; and

a memory coupled to the processor, wherein the memory stores software that configure the processor to:

detect beacon frames in the received piconet communications, wherein the beacon frames delineate piconet superframes; and

obtain from the beacon frames a rotation sequence for frequency hopping sequences."

Although *Fleek* is missing a number of further claim limitations and element relationships, Applicant respectfully notes that the Examiner was correct in the *previous* Office Action (dated June 29, 2007), namely that *Fleek* fails to teach or suggest "…a rotation sequence…". In the *present* Office Action (dated January 24, 2008), the Examiner switches positions and now mistakenly indicates that *Fleek* shows such missing limitation. Applicant respectfully traverses.

Simply, *Fleek* fails to teach, disclose or suggest a rotation sequence or the equivalent thereof.

According to *Fleek*'s own teaching in the cited and applied portion:

> "In the second approach, which for the hop cycle trailer **490** is shown in FIG. **7**, a fixed frequency-hopping pattern is used. This pattern is one of several patterns that are assumed to be known by both the leader and remote stations. Thus, the leader need only indicate the pattern that is being used (i.e., the frequency pattern number) and the current index in the pattern, that is, the index indicating at which point <u>in the given frequency pattern</u> the radio transceiver will next be hopping to." (*Fleek*, Column 7, lines 29-37; emphasis added)

Thus, the "leader" indicates which frequency pattern is being used and where in that indicated frequency pattern the radio transceiver will next be hopping to; neither is a rotation sequence, and both are inconsistent with how Applicant has defined and used "rotation sequence". Moreover, it would be unfortunate for any device which missed the hop cycle trailer of the *Fleek* system because the device would have no idea which frequency is next because it would miss the frequency pattern and the index pointing

to where in that frequency pattern the leader was going next. *Fleek* is absolutely silent with respect to a rotation sequence or the equivalent thereof. *Fleek* would benefit from implementing the teachings of the present invention.

In contrast to *Fleek* - according to Applicant's specification:

> "A rotation sequence is a sequence of frequency hopping sequences. Just as there are a variety of frequency hopping sequences, there are a variety of rotation sequences. A rotation sequence is identified by a rotation index while a frequency hopping sequence is identified by a hopping index." (Applicant's Specification, page 3, **[0005]**).
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> "To enable devices that miss one or more beacons to continue their transmission and reception without interruption, as is important for audio/video streaming, the hopping sequences to be used in successive superframes are pre-ordered into a rotation sequence which is also identified in each beacon. More details are given below in connection with FIG. 3." (Applicant's Specification, pages 5-6, **[0010]**; emphasis added)
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> "A frequency hopping sequence is a sequence of frequencies bands ("channels") to be used by devices communicating during a superframe. Starting with the beginning of each frame (or with the beginning of the frame preamble if there is one) in the superframe the devices transmit each channel symbol in a different channel as specified by the hopping sequence. The first channel symbol will be sent in the channel specified by the first element of the hopping sequence, the second channel symbol will be sent in the channel specified by the second element of the hopping sequence, and so only the sequence of channels may be selected from a pool of possible hopping sequences." (Applicant's Specification, pages 9-10, **[0020]**)
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> "The frequency hopping sequence may change from superframe-to-superframe. Each superframe uses one hopping sequence. A rotation sequence is used to specify the order in which the hopping sequences are employed. The rotation sequence may be selected from a pool of possible rotation sequences." (Applicant's Specification, page 10, **[0021]**)
>
> "The use of frequency hopping sequence rotation may offer other benefits specific to the piconet communications protocol. For example it is expected that piconet member devices will occasionally

> miss beacons. Without the use of a specified rotation sequence, the loss of even a single beacon could cause a member device to lose track of the hopping sequence and have to drop out of the piconet. However, with knowledge of the specified rotation's sequence the piconet member devices are aware of the hopping sequence and may be able to participate in the superframe communications without having received the beacon. (Applicant's Specification, pages 11-12, **[0023]**)
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> "FIG. 3 shows one embodiment of a frequency hopping sequence rotation information element 302. The information element includes an element identifier field 262 that specifies that the information element contains frequency hopping sequence rotation information. Also included is the length field 264 which may indicate that a payload of two bytes long follows. This payload is the information element payload and includes a hopping index field 304 and a rotation index field 306. The hopping index field 304 specifies the hopping sequence to be used during the current superframe, i.e., the current position in the rotation sequence. The rotation index field 306 specifies the rotation sequence currently being used by the piconet. … By monitoring the frequency hopping sequence rotation information element, the piconet member devices can determine not only the hopping sequence for the current superframe, but also the hopping sequences for future superframes." (Applicant's Specification, page 12, **[0024]-[0025]**)

In view of this discussion from Applicant's Specification, it becomes quickly apparent, *Fleek* fails to teach or suggest Applicant's claimed "rotation sequence". As a result of failing to teach or suggest "…a rotation sequence…", *Fleek* also fails to disclose "receiving a beacon frame that specifies a rotation sequence and a hopping sequence", much less "using the rotation sequence and hopping sequence received previously to determine a current frequency hopping sequence for a current superframe following the missed beacon frame" (Claim 1). Fleek further fails to disclose, as a result, "obtain from the beacon frames a rotation sequence for frequency hopping sequences" (Claim 12).

Thus, the missing claimed limitations and relationships in *Fleek* are in sharp contrast to Applicant's claimed invention. As a result, independent Claims 1 and 12 are not anticipated by *Fleek*. Accordingly, Applicant respectfully requests withdrawal of the rejection under Section 102 and allowance of

independent Claims 1 and 12, as well as all claims depending therefrom. Thus, all Claims 1-21 should be indicated as allowed.

In the course of the foregoing discussions, Applicant may have at times referred to claim limitations in shorthand fashion, or may have focused on a particular claim element. This discussion should not be interpreted to mean that the other limitations can be ignored or dismissed. The claims must be viewed as a whole, and each limitation of the claims must be considered when determining the patentability of the claims. Moreover, it should be understood that there may be other distinctions between the claims and the cited art which have yet to be raised, but which may be raised in the future.

Applicant respectfully requests reconsideration and that a timely Notice of Allowance be issued in this case. It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Texas Instruments Incorporated's Deposit Account No. 20-0668.

Respectfully submitted,

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